

Gabriel Orlanski

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Education

New York University

MS COMPUTER SCIENCE

New York, New York

Fall 2021 - May 2023

Rensselaer Polytechnic Institute

BS IN COMPUTER SCIENCE WITH A MINOR IN QUANTITATIVE MODELING IN ECONOMICS

Troy, New York

August 2017 - May 2021

- **GPA:** 3.70 (Past Two Semesters), 3.10 (Overall)
- **Awards:** Dean's Honor List Fall 2019 & 2020

Skills

Programming

Python, Tensorflow, PyTorch, C, C++, SQL, Java, Excel VBA, Javascript, Git, MongoDB, Postgres, MySQL

Computer Science

Natural Language Processing, Machine Learning, Data Structures, Algorithms, Software Design, Data Engineering, ETL

Experience

Undergraduate Researcher

RPI - DEPARTMENT OF COMPUTER SCIENCE

January 2021 - Present

Troy, New York

- Advisor: Alex Gittens
- Researching how to improve code generation techniques for answering StackOverflow questions.
- Implemented and replicated multiple methods from other papers to serve as baselines.
- Designed experiments that demonstrated that denoising transformers perform 40% better than their translational counterparts.
- Built a model that used question data to generate code, beating the previous state-of-the-art results by 10%.
- Submitted paper to the NLP4Prog workshop at ACL-IJCNLP.

Undergraduate Researcher

RPI - THE LALLY SCHOOL OF MANAGEMENT

September 2019 - November 2020

Troy, New York

- Advisor: Thomas Shohfi
- Researched the use of sentiment in financial reports and conference calls to detect algorithmic trading of an equity.
- Found that less than 10% of negative sentiment had significance, while positive sentiment acted as noise in the data.
- Tripled the amount of usable data for over 25,000 financial filings by implementing NLP algorithms to extract salient information.
- Designed and built an end-to-end program that mines the SEC Filings for over 2,000 firms.
- Created a Python pipeline to accurately parse more than 10 million unstructured Analyst Earnings Reports in only 10% of the total run-time.

Undergraduate Researcher

RPI - DEPARTMENT OF COMPUTER SCIENCE

May 2019 - September 2019

Troy, New York

- Advisor: Heng Ji
- Researched Author Disambiguation for the Association of Computational Linguistics' new anthology.
- Designed a model that achieved over 97% accuracy classifying 1 million unique authors.
- Created a python program to parse over 12,000 academic papers and extract information.
- Engineered metadata features to improve the model's performance by over 50%.
- Reduced the program's runtime from days to hours by designing an algorithm to eliminate impossible author pairs.

Software Engineering Intern

ADDINEX TECHNOLOGIES

May 2018 - August 2018

New York, New York

- Built a Python crawler that found over 100 potential research partners for the biotech startup Addinex.
- Designed and implemented a patient tracking software that allowed doctors and pharmacists to see if their patients took medication outside of their prescribed dosage.

Open Source Contributions

Adversarial Robustness Toolkit

- Working with Dr. sc. Beat Buesser at IBM as the project leader for a group of students from RPI.
- Implementing a new video classification attack from an existing paper.
- Taught linear algebra and machine learning techniques to other members of the group.

AllenNLP

- Implementing a dataset reader for the "Reading Comprehension with Commonsense Reasoning Dataset" task from the SuperGLUE benchmark.